

WHAT IS CLAIMED IS AS FOLLOWS:

1. A water box assembly for an underwater pelletizer having a rotating shaft for cutting extruded pellets against a die plate coupled to an extruder housing, which comprises:

a generally cylindrical water box main body having a longitudinal chamber surrounding said rotating shaft and having a flange on an inner periphery nearest said housing; and

an annular section coupled between said water box main body and said die plate and secured to said housing by a first plurality of fastening elements, said flange of said water box main body coupled to said annular ring with a second plurality of fastening elements so that said water box main body can be released from said annular ring, die plate and housing by said second plurality of fastening elements.

2. The water box assembly as set forth in claim 1, wherein said second plurality of fastening elements are fewer in number than said first plurality of fastening elements.

3. The water box assembly as set forth in claim 1, wherein said annular section is sealingly connected to said die plate and said water box main body is sealingly connected to said annular section but is detachable therefrom without breaking said sealing connection between said annular section and said die plate.

4. The water box assembly as set forth in claim 1, wherein said first and second pluralities of fastening elements are interspersed around a circumference of said annular section.

5. The water box assembly as set forth in claim 1, wherein said annular section includes a plurality of substantially circular apertures for receiving said first and second fastening elements, said first plurality of fastening elements being flush with or recessed within an outer face of said annular section which sealingly adjoins an inner face of said flange.

6. The water box assembly as set forth in claim 5, wherein said flange includes a plurality of substantially circular apertures for receiving said second plurality of fastening elements, said flange overlying and covering said first plurality of fastening elements.

7. A water box assembly for a pelletizer having a die plate with extrusion orifices therein, a driven rotary cutter blade hub supported in opposed relation to said die plate, at least one cutter blade mounted on said blade hub and moving in a plane generally parallel to and closely adjacent said die plate to cut strands of material extruded through said orifices into pellets, said water box assembly comprising a water box main body and an

inline adapter defining a cutting chamber adjacent said die plate and enclosing said cutter blade hub and cutter blade, said inline adapter sealingly connected to said die plate and said water box main body sealingly connected said inline adapter in use but detachable therefrom for access to said cutter blade hub without breaking said sealing connection between said adapter and said die plate.

8. The water box assembly as set forth in claim 7, wherein said adapter is generally in the shape of an annular ring.

9. The water box assembly as set forth in claim 8, wherein said inline adapter annular ring has a surface which mates with a corresponding surface of a flange on said water box main body for said sealing connection thereto.

10. The water box assembly as set forth in claim 7, wherein said inline adapter is sealingly connected to said die plate by a first plurality of fastening elements, and said water box main body is connected to said adapter by a second plurality of fastening elements fewer in number than said first plurality of fastening elements.

11. The water box assembly as set forth in claim 10, wherein said second plurality of fastening elements comprise a plurality of studs secured at first ends thereof in a flange of an extruder inlet housing and extending outwardly therefrom.

12. The water box assembly as set forth in claim 10, wherein said inline adapter includes a plurality of substantially circular apertures for receiving said first and second fastening elements, said first plurality of fastening elements being flush with or recessed within an outer face of said inline adapter which sealingly adjoins a flange on said water box main body.

13. The water box assembly as set forth in claim 12, wherein said water box main body flange includes a plurality of substantially circular apertures for receiving said second plurality of fastening elements, said flange overlying and covering said first plurality of fastening elements.

14. The water box assembly as set forth in claim 7, wherein said assembly is defined by two pieces, said inline adapter and said water box main body.

15. A water box assembly for an underwater pelletizer adjacent a die plate at an end of an extruder inlet housing which

comprises an inline adapter, a water box main body, a first plurality of fastening elements fastened between said extruder inlet housing and said adapter to sealing connect together said extruder inlet housing, said die plate and said inline adapter and a second plurality of fastening elements fastened between said extruder inlet housing and said water box main body to sealing connect together said water box main body and said inline adapter.

16. The water box assembly as set forth in claim 15, wherein said water box main body can be disconnected from said inline adapter by releasing said second plurality of fastening elements.

17. The water box assembly as set forth in claim 15, wherein said first plurality of fastening elements are fastened between said extruder inlet housing and said adapter through holes around the periphery of said die plate.

18. The water box assembly as set forth in claim 15, wherein said second plurality of fastening elements are fastened between said extruder inlet housing and said water box main body through aligned holes around the periphery of both said die plate and said inline adapter.